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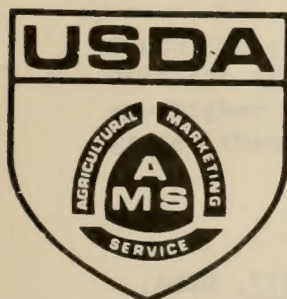
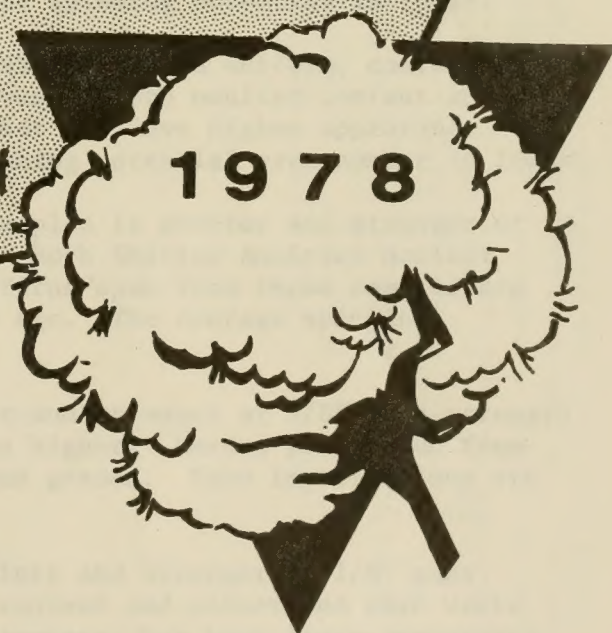
F.A.S. - Univ. of Florida

Cotton Fiber and Processing Test Results



CROP of

1978



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 November 17, 1978

REPORT NO. 5

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U.S. Dept. of Florida

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standards Section, Cotton Division, Agricultural Marketing Service, U.S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN. 38122.

1978

CROP OF 1977

AGRICULTURAL MARKETING SERVICE

U.S. DEPARTMENT OF AGRICULTURE

1978

1/ Summary of Cotton Fiber and Processing Test Results, Crop of 1977, USDA, AMS, Cotton Division, August 1978.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1978

Discussion of Test Results

The average Fibrograph 2.5% span length of short staple cotton tested from the Southwest through November 9 this season is considerably shorter and less uniform than a year ago according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons are stronger at zero gage, but weaker at 1/8" gage tests from a year ago. Both Shirley Analyzer nonlint content and picker and card waste are higher. Yarns spun from these samples show weaker yarn strength. Yarn appearance grades are higher. Imperfections are fewer. The average spinning potential is lower.

Medium staple samples tested from the Southeast show fibers to be longer, more uniform, finer and stronger at zero gage strength tests than a year ago. Yarns spun from these samples are stronger with higher appearance grades. Yarn imperfections are fewer. The spinning potential is higher.

South Central medium staple samples are shorter but average slightly stronger at zero gage strength tests. Shirley Analyzer nonlint content is lower. Picker and card waste is higher than last season. Yarns spun from these samples are weaker. Imperfections are fewer. The spinning potential is lower.

Medium staple samples from the Southwest are shorter, less uniform, coarser and stronger at zero gage strength tests. Both Shirley Analyzer nonlint content and picker and card waste are higher than a year ago. Yarns are weaker with lower appearance grades. Imperfections are fewer. The spinning potential is lower.

Medium staple samples tested from the West are shorter, less uniform, coarser and weaker than a year ago at this stage of the harvest. Both nonlint content and picker and card waste are lower. Yarns are weaker but have higher appearance grades. Yarn imperfections are lower. The spinning potential yarn number is lower.

The average fiber length of all medium staple samples is shorter and stronger at zero gage fiber strength tests than a year ago. Both Shirley Analyzer nonlint content and picker and card waste are higher. Yarns spun from these samples are weaker but have fewer imperfections than a year ago. The average spinning potential yarn number is lower.

Long staple samples from the Southeast are finer and stronger at 1/8" gage strength tests than a year ago. Picker and card waste is higher. Carded yarns spun from these samples are stronger with higher appearance grades. Yarn imperfections are lower.

South Central long staple samples are longer, finer and stronger at 1/8" gage strength tests. Both Shirley Analyzer nonlint content and picker and card waste are higher than a year ago. Carded yarns are stronger, but have lower appearance grades than a year ago. Imperfections are lower. The spinning potential is higher.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States
through November 9, 1978 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results								
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality		Spin. Potent.					
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appearance						
												Inches	Pct.	Rdg.	Mpsi	G/tex
No.																
Short Staple Southwest	41	.98	46	4.2	89	22	3.1	5.4	99	110	13	3/	46			
	17	.93	45	4.2	93	21	4.0	7.3	94	119	7	--	18	38		
Medium Staple Southeast	21	1.08	45	4.8	87	23	3.1	6.0	97	94	20	--	51			
	18	1.11	46	4.5	88	23	3.1	5.9	109	98	12	68	58			
South Central	100	1.11	45	4.6	86	23	3.5	6.0	105	96	21	--	57			
	66	1.09	45	4.6	87	23	3.2	6.4	103	97	12	52	51			
Southwest	42	1.08	46	4.2	86	22	3.2	5.7	103	91	18	--	54			
	38	1.04	45	4.3	89	22	4.4	6.3	101	82	16	82	51			
West	8	1.12	46	4.4	91	26	2.4	5.5	117	89	24	--	67			
	9	1.09	45	4.8	89	23	2.0	5.4	105	107	11	45	52			
U.S. Average	171	1.10	45	4.5	86	23	3.3	5.9	104	94	21	--	56			
	131	1.08	45	4.5	88	23	3.5	6.2	102	93	13	62	52			
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2		3			

1/ Based on a limited number of samples of modal quality2/ Minimum differences considered to be significant for comparisons in this table.3/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through November 9, 1978 L/ (Continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results						Processing Test Results										SPY
		Length		Mike	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality					22s Carded & Combed Yarn			
					Zero	1/8"				Strength	Appearance	Imprfctns						
		Span	Unif	gage	gage	carded	combed	carded	combed	card	comb							
No.	In.	Pct.	Rdg.	Mpsi	G/tx	Pct.	Pct.	Pct.	Lbs.	Indx	Indx	No.	No.	No.				
Long Staple Southeast 1977 1978	6	1.13	45	4.8	86	23	3.2	6.6	- 3/	102	-	103	-	15	-	58		
	9	1.13	45	4.4	86	25	3.2	7.5	16.2	115	130	109	127	11	3	59		
	2	1.14	44	4.4	90	24	3.8	6.8	-	105	-	95	-	26	-	63		
	2	1.17	44	4.1	90	26	4.2	8.7	17.2	112	135	90	125	22	5	66		
South Central 1977 1978																		
Significant Difference 2/																		

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table.

3/ Comparable combed yarn data not available.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent-ial	
				2.5% span	Unif		Zero	1/8" Gage		Pct	No	Gra	Yel		8s or 74 tx	22sor 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	27 tx	Pct	No		22sor 27 tx
SOUTHWEST AREA																								
CENTRAL TEXAS																								
ITASCA																								
3	MID LT SP	32 30	0.95	45	4.7	90	20	LANKART LX571	5.3	4.0	3	4	7.3	293	99	100 PERCENT	6.9	6.2	120	130	30	(4)	10	1/ (26) 44
KAUFMAN																								
3	SLW LT SP	42 30	0.99	46	5.2	90	21	LANKART LX571	5.7	4.8	3	4	7.3	296	102	99 PERCENT	6.8	5.9	130	130	26	(2)	8	(24) 45

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Style	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- ial
				2.5% span	Unif.		Mpsi	G/tex		Pct	Pct	Gra	Yel		Pct	Pct	Lbs	Lbs	Pct	Pct	22s or 27 tx	22s or 27 tx	
SOUTHEAST AREA																							
ALABAMA																							
2 SLM		41 34		1.11	47	4.5	88	22	5.9	55	3.1	2	3	6.1	111	37	6.2	4.6	110	70	9	1/ (28)	7 (122) 62
HUNTSVILLE																							
2 SLM		41 34		1.12	44	4.0	88	24	5.8	603	2.6	2	3	5.9	106	35	5.7	4.3	110	70	12	(62)	9 (182) 55
MADISON																							
2 SLM		41 34		1.12	46	5.0	83	22	6.8	213	2.8	2	3	6.0	104	35	6.3	4.8	110	70	12	(40)	10 (180) 60
OPELIKA																							
2 SLM		41 34		1.13	43	4.2	86	24	5.6	16	2.8	2	3	6.1	106	37	6.0	4.7	90	70	11	(56)	10 (202) 50
WILSONVILLE																							
2 SLM		41 34		1.11	46	4.6	89	24	6.6	16	3.3	2	3	5.7	109	36	6.5	4.8	100	70	9	(48)	9 (152) 60
GEORGIA																							
2 SLM		41 35		1.14	47	4.8	91	24	5.1	201	3.6	2	3	6.4	114	39	5.8	4.4	100	80	11	(84)	8 (194) 60
NORTH CAROLINA																							
LAURINBURG		50 36		1.10	48	4.1	94	25	5.9	220	6.6	2	1	7.8	126	42	6.7	4.8	100	80	17	(82)	15 (216) 60
SOUTH CAROLINA																							
2 SLM		41 35		1.12	45	4.8	88	23	5.9	201	2.6	2	3	5.6	102	33	5.8	4.3	90	70	12	(64)	10 (226) 50
SOUTH CENTRAL AREA																							
ARKANSAS																							
1 SLM		41 34		1.05	47	5.3	93	23	5.6	213	2.7	2	3	5.9	94	30	5.4	4.3	110	90	15	(56)	10 (142) 40
MARION																							
2 SLM LT SP		42 35		1.18	46	4.5	78	22	7.7	16	4.4	2	3	6.4	105	35	6.8	5.0	90	70	16	(72)	11 (288) 60

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns											
Sample Number				Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n	S.A. Non- Lint		Color Raw Stock		P & C Waste		Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- ial	
No	Grade	Stple	32s	2.5% span	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	Yel	Waste	Pct	Lbs	Lbs	22s or 27 tx	50s or 12 tx	Pct	No	No	No	No	
SOUTH CENTRAL CONTINUED																									
LOUISIANA																									
ALEXANDRIA																									
1	SLM	41	34	1.09	45	5.1	34	21	5.6	2.6	3	3	6.0	100 PERCENT	93	29	5.7	4.0	110	90	7	1/ (38)	6	1/ (172)	51
LAKE PROVIDENCE																									
2	SLM	41	34	1.08	45	5.0	96	24	4.8	3.2	1	2	7.1	100 PERCENT	94	30	5.6	4.0	100	70	10	(48)	9	(204)	44
OAK RIDGE																									
2	SLM	41	34	1.09	46	4.8	91	22	5.4	2.6	2	3	5.4	100 PERCENT	100	32	5.3	3.8	120	80	6	(12)	5	(100)	51
SHREVEPORT																									
1	SLM LT SP	42	34	1.08	44	4.7	89	22	6.1	3.7	3	4	7.1	100 PERCENT	87	25	5.5	3.8	100	80	9	(26)	7	(212)	39
MISSISSIPPI																									
GREENVILLE																									
2	SLM	41	35	1.12	45	4.5	85	23	6.6	2.6	1	3	6.0	100 PERCENT	109	35	6.5	4.4	100	80	8	(28)	5	(190)	57
INDIANOLA																									
2	SLM	41	34	1.04	45	4.7	37	23	5.8	2.5	3	3	6.8	100 PERCENT	92	29	5.4	3.9	110	80	8	(20)	7	(134)	39
LYON																									
2	SLM	41	34	1.10	44	4.8	83	23	6.1	4.1	1	2	7.1	100 PERCENT	99	33	6.2	4.5	110	80	15	(42)	9	(194)	47
MORGAN CITY																									
2	SLM	41	35	1.13	44	4.3	88	24	6.6	3.5	2	3	6.3	100 PERCENT	114	38	6.6	4.7	100	70	13	(64)	10	(266)	58
OKOLONA																									
1	LM	51	34	1.11	45	4.8	91	22	5.8	3.8	3	3	7.0	100 PERCENT	100	33	5.7	4.2	100	70	12	(46)	9	(282)	47
2	SLM	41	34	1.10	44	4.9	89	22	5.6	3.6	2	3	6.7	100 PERCENT	95	31	5.8	3.8	100	80	9	(26)	10	(186)	41
SARDIS																									
2	SLM	41	35	1.11	43	3.9	86	20	5.8	2.7	1	3	6.2	30 PERCENT	106	33	6.2	4.1	90	70	9	(28)	8	(234)	50
SHAW																									
2	SLM	41	35	1.09	46	5.0	38	23	6.4	2.3	2	3	7.0	100 PERCENT	104	34	6.0	4.2	120	90	9	(74)	9	(184)	51
MISSOURI																									
HORNERSVILLE																									
3	SLM	41	35	1.12	45	4.5	83	22	6.4	3.1	1	3	6.4	90 PERCENT	104	34	6.2	4.7	90	70	18	(98)	13	(310)	51

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.
2/ Cotton stuck to processing rolls.

Table 3--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non-Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potent-ial	
				2.5% span	Unif.		In	Pct		Zero	1/8" Gage	Pct	Pct		No	Yel	Pct	Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		22s or 27 tx
SOUTH CENTRAL CONTINUED																								
PORTAGEVILLE				STONEVILLE 213																				
2 MID	31	35	1.08	46	5.0	88	22	6.0	2.6	1	3	5.9	100	33	5.8	4.3	90	80	10	10	10	10	10	10
SENATH				AUBURN M																				
2 SLM	41	35	1.12	45	4.3	87	23	6.4	2.6	1	3	6.4	103	33	6.5	5.0	90	70	12	12	12	12	12	12
TENNESSEE				STONEVILLE 213																				
3 MID	31	33	1.03	46	5.1	84	21	6.7	2.3	1	3	5.5	87	27	5.4	4.0	100	70	9	9	9	9	9	9
BROWNSVILLE				DIXIE KING 111																				
2 SLM	41	34	1.04	45	4.3	89	23	5.5	3.4	2	3	6.7	102	33	6.0	4.8	90	70	13	13	13	13	13	13
3 SLM	41	34	1.09	45	4.6	89	22	6.0	2.2	1	3	6.1	94	28	5.5	3.8	100	70	10	10	10	10	10	10
SOUTHWEST AREA				TAMCOT SP37																				
CENTRAL TEXAS				GP3755																				
FERRIS				DELTA PINE 16																				
3 SLM				NAVASOTA																				
GRANDVIEW				NAVASOTA																				
2 MID LT SP				NAVASOTA																				
3 SLM				NAVASOTA																				

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.
 2/ Cotton stuck to processing rolls.
 3/ End breakage too high to spin 50s yarn. 36s yarn spun and strength adjusted to equivalent of 50s.
 4/ End breakage too high to spin 50, 44 or 36.
 5/ End breakage too high to spin the coarsest desired yarn number reported number is an estimated value below the range of the test.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Poten- tial			
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	Lbs	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		27 tx	50s or 12 tx	
				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No			
WEST AREA																									
ARIZONA																									
1 MID		31	35	1.10	46	4.6	79	21	6.9	1.9	0	4	5.6	74 PERCENT		100	33	6.6	4.4	100	70	16	9	1/ (268) 52	
MARANA																									
1 MID		31	35	1.14	44	4.6	87	20	5.6	2.0	0	3	5.9	70 PERCENT		102	33	6.0	4.5	100	70	10	8	(264) 49	
MOHAVE VALLEY																									
1 MID		31	35	1.09	44	4.8	95	22	4.6	2.3	0	3	6.0	90 PERCENT		102	31	5.2	3.7	110	70	8	5	(174) 48	
PARKER																									
1 MID		31	35	1.08	46	5.1	87	23	6.0	2.0	0	3	4.8	99 PERCENT		107	35	5.8	4.3	110	80	7	6	(158) 50	
PEORIA																									
1 MID		31	35	1.10	45	5.1	87	24	6.2	2.2	1	3	4.5	100 PERCENT		106	35	6.2	4.8	110	70	10	9	(220) 57	
ROLL																									
1 MID		31	34	1.09	46	4.9	90	25	5.8	2.2	1	3	6.1	90 PERCENT		107	36	5.6	4.5	100	80	15	11	(196) 52	
CALIFORNIA																									
1 MID		31	35	1.11	46	4.4	96	24	5.3	2.2	1	3	5.0 ^{2/}	91 PERCENT		119	40	6.0	4.5	120	80	7	7	(146) 66	
RIPLEY																									
2 MID		31	34	1.07	46	4.9	89	22	5.5	2.0	1	3	5.6	97 PERCENT		103	32	5.8	4.2	110	70	11	9	(210) 51	

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

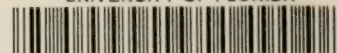
2/ Cotton stuck to processing rolls.

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number										Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C and Comber Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent-ial						
					2.5% span	Unif.		Pct	Rdg			Zero Gage	1/8" Gage		Pct	G/tex	Pct	Pct	22s or 27 tx	50s or 12 tx	Pct	Pct		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		
SOUTHEAST AREA																													
ALABAMA																													
HOLTVILLE																													
2 SLM	41	35	1.13	44	4.2	87	26	COKER 310	6.0	2.9	2	3	7.7	97 PERCENT	109	36	5.8	4.1	100	70	11	11/14	10	1/158	59				
												*	17.2		129	45	6.0	4.8	130	100	4	(32)	3	(152)					
PIEDMONT																													
2 SLM	41	34	1.12	44	4.2	87	25	COKER 310	5.7	2.8	2	3	7.8	100 PERCENT	111	37	5.7	4.5	110	80	9	(12)	8	(124)	61				
												*	16.5		129	45	6.2	4.5	130	100	2	(18)	2	(96)					
GEORGIA																													
MADISON																													
1 SLM	41	35	1.15	45	4.6	86	24	COKER 310	5.1	3.9	2	4	7.4	100 PERCENT	109	37	5.7	4.4	110	100	9	(10)	7	(142)	60				
												*	16.9		129	45	6.3	4.8	130	110	3	(20)	2	(92)					
NORTH CAROLINA																													
DUNN																													
1 SLM	41	35	1.11	44	4.2	87	25	COKER 310	5.3	2.6	2	3	7.1	80 PERCENT	106	35	5.6	4.1	120	80	12	(2)	8	(126)	56				
												*	17.2		128	43	6.1	5.0	130	100	3	(24)	2	(138)					
2 SLM PLUS	40	35	1.10	45	4.6	89	25		5.9	2.1	2	3	7.3		103	34	5.5	4.0	110	70	8	(22)	10	(172)	53				
												*	16.0		125	42	6.0	4.5	130	110	3	(20)	1	(110)					
SOUTH CAROLINA																													
HINTURN																													
2 LM PLUS	50	36	1.16	45	4.2	85	25	COKER 310	5.5	5.0	2	2	8.5	96 PERCENT	114	39	5.7	4.5	110	80	13	(32)	10	(112)	56				
												*	15.7		129	45	6.0	4.8	130	100	4	(32)	2	(144)					
SOUTH CENTRAL AREA																													
MISSISSIPPI																													
LAKE CORMORANT																													
1 SLM	41	36	1.18	44	4.2	92	26	COKER 310	5.3	3.7	2	2	8.7	100 PERCENT	113	39	5.8	4.0	90	70	17	(38)	14	(276)	65				
												*	17.6		136	48	6.0	4.6	120	100	6	(62)	5	(224)					
2 LM	51	36	1.17	44	4.0	89	26		5.3	4.7	2	2	8.8		111	38	5.2	4.4	90	70	27	(44)	20	(246)	67				
												*	16.7		135	48	6.3	4.7	130	100	4	(22)	5	(220)					

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.
2/ Reduced from 41 because of gross.

* Comber Waste and Combed Yarn Data



3 1262 08583 1534